L 27836-65
ACCESSION NR: AP5005323

sorption was shown to be a function of the strength of the electric field applied to the specimen (for a period of 5 μsec) during the transmission of the acoustic wave. The nature of the relationship is governed by the conductance of the specimen and agrees well with results obtained by Hutson for the transverse wave. Orig. art. has: 2 figures. [YK]

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut fizikotekhnicheskikh i radiotekhnicheskikh izmereniy, Mendeleyevo (All-Union Scientific Research Institute of Physicotechnical and Radiotechnical Measurements)

SUBMITTED: 12Sep64	ENCL: 00	SUB CODE: GP, SS
NO REF SOV: 001	OTHER: 004	ATD PRESS: 3193

Card 2/2

OSADCHIY, V.G.; BAYBAKOV, V.V.

Characteristics of the change in physicochemical properties of petroleums in the Bitkov oil field. Neftegaz.geol. i geofiz. no.8:39-42 '65. (MIRA 18:8)

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN UkrSSR.

BAYBAKOV, V.Ye., inzh.; BOLIBKOVA, V.A., inzh.

Manufacturing flat tiles by an improved technology. Stroi.mat. 8 no.1:26-27 Ja '62. (MIRA 15:5)
(Brick industry)

BAYBAKOV, Ye., inzh.

New harbor in Yakutsk. Rech. transp. 19 no.11:50 N '60. (MIRA 13:11)

(Yakutsk--Harbors)

NESTERUK, F., doktor tekhn.nauk; BAYBAKOV, Ye., inzh.

African rivers and their water resources development. Rech. transp. 20 no.8:51-56 Ag '61. (MIRA 14:10)
(Africa--Rivers) (Water resources development)

BAYBAKOV, Ye.M., inzh.

Mechanized coal wharf in Kotlas harbor. Rech.transp. 16 no.12: 15-16 D '57. (MIRA 11:1)
(Kotlas--Coal handling machinery)

11701
S/032/62/028/011/008/015
B104/B102

11.9460

AUTHORS: Sinitsyn, V. V., Kalashnikov, V. P., Baybakova, L. L., (maybe L.D.)
Smolokotina, Z. G. and Chukhrova, A. V.

TITLE: Method of estimating the oxidizability of lubricating greases

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 11, 1962, 1352 - 1354

TEXT: Following thorough consideration of the optimum quantity of grease whose oxidizability is to be determined, its optimum temperature, and optimum oxidation time, the following procedure is suggested using results published in Soviet and non-Soviet papers (F. T. Wright, H. A. Mills, Proc. ASTM, 38, II (1938)): 1.7 - 1.9 g of grease is put into a small cup of electrolytic copper, or a slice of grease (1 ± 0.05 mm thick, 50 mm diameter) is applied to a glass plate by means of a template. The small cup or the glass plate are then enclosed in a Petri cup and are kept in a thermostat at a certain temperature for 5 - 200 hrs. Before and after the test, the acid number of the grease is determined according to ГОСТ 6707-57 (GOST 6707-57). The index of oxidation of the acid is defined as being the difference between the acid numbers before and after the test. Temper-

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S/032/62/028/011/008/015
B104/B102

Method of estimating the...

ature and time of the experiment are fixed according to the mode of application of the grease. The high stability of ЦИАТИМ-201 (TsIATIM-201), ЦИАТИМ-202 (TsIATIM-202), and 1-Л3 (1-L3) is due to the content of diphenyls, that of ЦИАТИМ -203 (TsIATIM-203) and ЯНЗ-2 (YaNZ-2) to the content of sulfurous compounds, and that of ЦИАТИМ-203 (TsIATIM-203) is due also to the additional content of triphenyl phosphate. ЦИАТИМ-221 (TsIATIM-221) practically does not oxidize, because of the high stability of polysiloxanes. There are 2 figures and 1 table.

ASSOCIATION: Moskovskiy zavod "Neftegaz" (Moscow "Neftegaz" Plant)

Card 2/2

BAYBAKOVA, Ye. N. (AND others)

The problems of climatology. (In Russian)
Trudy Inst. Geogr. U.S.S.R. Acad. Sci., Moscow, No. 48, 1950

CHUBUKOV, L.A.; BAYBAKOVA, Ye.M.; IL'ICHEVA, Ye.M.

Method for comparative analysis of the climate at spas and health resorts. Vop.kur.fizioter. i lech.fiz.kul't no.2:7-12 Ap-Je '55. (MLRA 8:8)

1. Iz Tsentral'nogo instituta kurortologii (dir.--kandidat meditsinskikh nauk G.N. Pospelova)

(CLIMATE,
in health resorts, method of analysis)
(HEALTH RESORTS,
analysis of climate)

BAYBAKOVA, Ye. M.

Translation from: Referativnyy Zhurnal, Geografiya, 1957, [1-14-710] Nr 1, p. 84 (USSR)

AUTHOR: Baybakova, Ye.M., Il'icheva, Ye.M., Chubukov, L. A.

TITLE: The Methodology of Comparative Climate Analysis of Resorts and Health Stations (Metodika sravnitel'nogo analiza klimata kurortov i lechebnykh mestnostey)

PERIODICAL: Sbornik: Vopr. izucheniya kurort. resursov SSSR. Moscow, Medgiz, 1955, pp. 292-312

ABSTRACT: Experience in the use of complex climatological methods in analyzing observations made at bioclimatic stations shows the efficacy of these methods in the comparative evaluation of climatic conditions at resorts and health station, and the evaluation of meteorological conditions for climatotherapeutic procedures. In applying the complex climatological method the use of numberical charts in cataloging daily and momentary weather is recommended. In evaluating meteorological conditions required for climatotherapeutic procedures it is necessary to use climatotherapeutic classification charts suggested by physicians (such as the one proposed by N. Z. Mikhailov).

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11-14-710

The Methodology of Comparative Climate Analysis of Resorts and Health Stations. (Cont.)

A weather catalog is also convenient in analysing the effect of weather on the organisms of sick persons.

A. T.

Card 2/2

BAYBAKOVA, Ye. M.

3(5) PHASE I BOOK EXPLOITATION SOV/1781

Akademiya nauk SSSR. Institut geografii.

Voprosy fizicheskoy geografii (Problems in Physical Geography) Moscow, Izd-vo AN SSSR, 1958. 370 p. Errata slip inserted. 1,500 copies printed.

Resp. Ed.: G.D. Rikhter, Doctor of Geographical Sciences, Professor; Ed. of Publishing House: D.N. Tugarinov; Tech. Ed.: N.D. Novichkova.

PURPOSE: This book is intended for meteorologists, hydrologists, pedologists, geologists, and students of physical geography in general.

COVERAGE: These articles are dedicated to Academician A.A. Grigor'yev in commemoration of his seventy-fifth birthday anniversary. They treat problems in physical geography pertaining to the northern regions of the USSR and particularly those of Yakutia. The majority of the articles are devoted

Card 1/4

to questions of latitudinal and vertical zonation and contain much factual material on the relationship between the various geographic components. Practical conclusions and meteorological principles are cited. Each article is accompanied by maps, photographs and numerous bibliographic references.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

MM/rj
6-11-59

Card 4/4

BAYBAKOVA, Ye.M.

Method of using short series of the frequency of cyclones, anticyclones, and weather classes. Trudy NIIAK no.12:5-15 '61. (MIRA 14:10)

(Climatology)

BAYBAKOVA, Ye.M.

Conference on problems of composite climatology. Vop. kur., fizioter. i lech. fiz. kul't. 27 no.1:90-91 '62. (MIRA 15:5)
(CLIMATOLOGY, MEDICAL--CONGRESSES)

BAYBAKOVA, Ye.M.; NEVRAYEV, G.A.; CHUBUKOV, L.A.; MAKRUSHINA, Ye.A., red.izd-va; PEN'KOVA, S.A., tekhn. red.

[Map of the climatic structures of health resorts of the U.S.S.R.] Karta struktur klimata kurortov i lechebnykh mestnostei SSSR. Moskva, Gosgeoltekhizdat, 1962. ___[Explanatory brochure] Ob"iasnitel'naia zapiska. 85 p. (MIRA 16:3)

1. Moscow. TSentral'nyy institut kurortologii i fizioterapii. (CLIMATOLOGY, MEDICAL)

BAYBAKOVA, Ye.M.; CHUBUKOV, L.A.; [illegible]

Evgraf Evgrafovich Fedorov, 1880-1965; obituary. Izv. AN SSSR. Ser. geog. no.5:157-158 S-O '65. (MIRA 18:10)

BAYBAKOVA, Z.V.; ROZHANSKAYA, F.M.; ROGOVIN, Z.A.

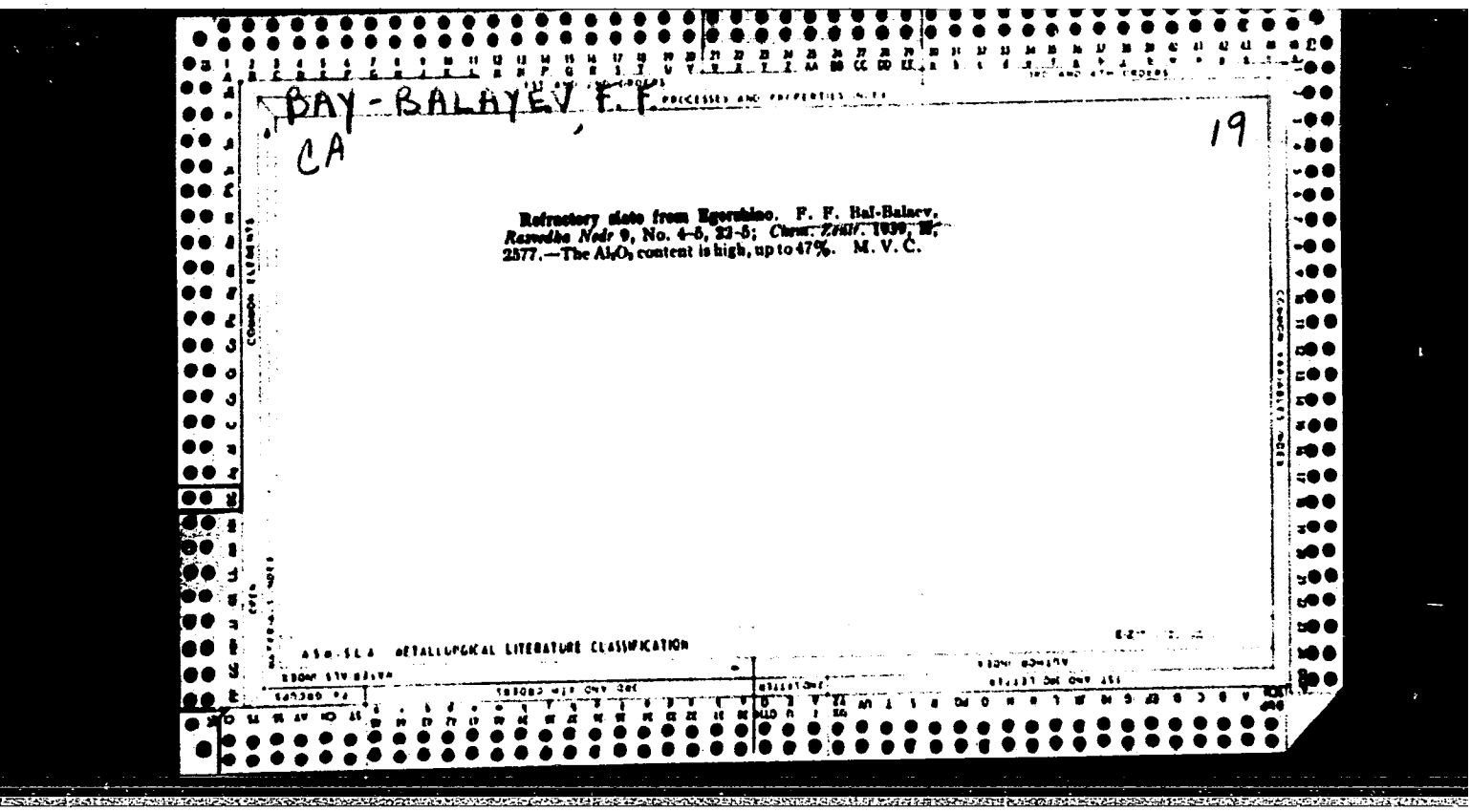
Formation of staple fiber from acetic acid solutions of triacetyl cellulose. Khim.volok. no.6:46-48 '61. (MIRA 14:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Cellulose acetate) (Textile fibers, Synthetic)

BAY-BALAEV, F.F. & M. M. BRIGOROVSKII

RT-1248 (Combustible shales) Goriuchie Slantsy. Pages 64-68 from: GEOLOGICHESKAIA IZUCHENNOST' I MINERAL'NO-SYR'EVAIA BAZA SSSR. I.M.Gubkin, Ed. Moscow-Leningrad, 1939.


BAY - BALAYEV, F. F.

CA

19

Refractory slate from Egorshino. F. F. Bal-Balaev. *Ravenika Nedr* 9, No. 4–5, 23–5; *Chem. Zentr.* 1939, II, 2577.—The Al_2O_3 content is high, up to 47%. M. V. C.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BAYBALIAYEV, F.F.

"Regularities in the Intermixing of Coal Seams in Coal Bearing Strata," Ugol, No. 3, 1949 Cand. Geologo-Mineralogical Sci.

BAYBARA, M.D., kombayner

Attachment to the KU-2A combine for regulating the height of cutting. Mekh.sil'.hosp. 10 no.7:4 Jl '59.
(MIRA 12:12)

1. Kolgosp im. Zhdanova, Mashivs'kogo rayonu, Poltavs'koi oblasti.
(Combines(Agricultural machinery)--Attachments)

ACC NR: AT7002855 (N) SOURCE CODE: UR/3239/66/000/003/0070/0082

AUTHORS: Epel'man, T. Ye.; Obrubov, A. S.; Lukin, A. I.; Baybarak, D. S.; Riske, Yu. S.; Nishchenko, A. Ye.

ORG: none

TITLE: A study of the diesel 4D 19/30 operating on sulfurous fuel with the addition of VNII NP-360 to the lubricating oil

SOURCE: Nikolayev. Korablestroitel'nyy institut. Sudostroyeniye i morskiye sooruzheniya, no. 3, 1966. Susovyye energeticheskiye ustanovki (Ship power equipment), 70-82

TOPIC TAGS: diesel engine, engine lubrication system, diesel fuel, lubricating oil, fuel composition, generator, fuel corrosiveness, lubricant additive/ D-11 lubricating oil, 4D 19-30 diesel engine, VNII NP-360 lubricant additive, SGD 12-24-10A AC generator

ABSTRACT: Studies were conducted at the DVS Laboratory of the Nikolayevsk Ship Building Institute im. Admiral S. O. Makarov (Laboratoriya DVS Nikolayevskogo korablestroitel'nogo instituta) to determine the effect of high sulfur fuel on diesel engine operation, both with and without an additive to the lubricating oil. The diesel, a 4D 19/30 made by the Berislavskiy Machine Construction Plant, was a two-cycle four-cylinder engine producing 160 hp at 500 rpm. Both in practice and on the

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ACC NR: AT7002855

test stand it drives an SGD 12-24-10A three-phase AC generator. To determine the base data, the engine was turned over hot for 200 hours. The actual test with a fuel containing 0.8% S was done in two stages: the first using lubricating oil D-11, the second using the same oil with an 8% addition of VNII NP-360. Each stage lasted for 300 hours over 7--8 cycles from idle operation to a 10% overload. The study of carbon and other deposits and of the wear of the engine parts was based on micrometer measurements, weights, and test borings of the members. The engine operation was also monitored. There was no engine failure due to the sulfur. The cooling process limited the water temperature to 75C, and further studies should be conducted to determine optimal temperature conditions for high sulfur fuels. Cylinder sleeve wear in the first stage was 12.24 micron and in the second stage -- 1.82. The additive reduced the piston wear by 21.9%, while the addition of VNII NP-360 reduced the total deposits from 41.953 g to 38.745 g. The latter additive also diminished the abrasive nature of the deposits. The use of VNII NP-360 in the lubricant with 1%-sulfur fuels is said to increase diesel lifetime by 15--20%. Orig. art. has: 5 figures and 9 tables.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 012

Card 2/2

Baybarin, P.

BAYBARIN, P.

From forced labor to free labor. Sots.trud no.11:79-83 N '57.
(MIRA 10:12)

(Moscow--Factories)

BAYBARIN, P.

Moscow steel workers are ready to meet the Congress of the Party.
Sov.profsoiuzy 6 no.13:18-20 O '58. (MIRA 11:11)
(Moscow--Steel industry)

BAYBARIN, P.

Steel is flowing! Sov.profsoiuzy 7 no.2:17-18 Ja '59. (MIRA 12:3)
(Iron and steel workers)

BAYBARIN, P.

How mastery was achieved. Znan.sila 35 no.9:6 S '60. (MIRA 13:10)

1. Zavod "Serp i molot."
(Metallurgists)

BAYBARIN, P.

Support research, give green light to plans. MTO 3 no.11:57-60 N '61. (MIRA 14:10)
(Zlatoust--Rolling(Metalwork))

BAYBARIN, P.

Research will be successful. Znan. sila 36 no. 5:17 My '61.
(MIRA 14:5)
(Moscow--Electric machinery)

BAYBARIN, P.

And this will come! Okhr.truda i sots.strakh. 4 no.12:10-11 D '61. (MIRA 14:11)
(Siberia, Western--Steel industry--Hygienic aspects)

BAYBARIN, P.

Reaching maturity. Znan. sila 36 no.10:8-11 O '61. (MIRA 16:12)

KLEMENT'YEVA, A.I.; SKOROKHODOV, M.A.; Prinimali uchastiye: ALEKSANDROV, G.P.; BABUN, F.Ya.; BAYBARIN, P.P.; VAYNSHTEYN, TS.Z.; GUSEV, L.V.; ZHETVIN, N.P.; KONTSEVAYA, Ye.M.; LEVINA, M.M.; NOVLYANSKAYA, K.A.; PODVOYSKIY, L.N.; TRUNTSEV, D.S.; FLEROV, N.G.; CHIKHACHEV, I.A.; YUROV, Yu.M.; GUDKOVA, N., red.; YEGOROVA, I., tekhn.red.

[Light over the gate] Svet nad zastavoi. Moskovskii rabochii, 1959. 422 p. (MIRA 12:4)
(Moscow--Metallurgical plants)

BAYBARIN, Petr Pavlovich; PUTYAYEV, Sergey Aleksandrovich; FOMENKO, I.P., red.; ZAYTSEVA, L.A., tekhn. red.

[Industrial safety committee of the factory and plant local committee] Komissiia FZMK po okhrane truda. Moskva, Profizdat. 1963. 61 p. (Bibliotechka profsoiuznogo aktivista, no.12(60)) (MIRA 16:12)
(Trade unions) (Industrial safety)

BAYBARODSKIKH, N.I.

Delineation of Jurassic sediments in the Turukhan basin and adjacent areas. Trudy NIIGA 130:3-11 '62. (MIRA 16:5)
(Turukhan Valley--Geology, Stratigraphic)

BAYBAROBSKIKH, N.I.; KULAKHMETOV, N.Kh.; POPLAVSKIY, N.N.

Geological development and facies of the eastern margin of the West Siberian Plain in the Jurassic and Lower Cretaceous. Trudy SNIIGGIMS no.26:40-47 '62. (MIRA 16:3)

(West Siberian Plain—Geology)

BAYBARODSKIKH, N.I.; KULAKHMETOV, N.Kh.; POPLAVSKIY, N.N.

Stratigraphy of Jurassic sediments in the Yenisey Valley portion of the West Siberian Plain. Geol. i geofiz. no.2:44-54 '63.
(MIRA 16:5)

1. Krasnoyarskoye geologicheskoye upravleniye.
(Yenisey Valley—Geology, Stratigraphic)

BAYBARODSKIKH, N.I.

Stratigraphy of Cretaceous sediments in the Turukhan-Yenisey interfluve. Geol.i geofiz. no.10:129-140 '63. (MIRA 17:1)

1. Severnaya kompleksnaya nefterazvedochnaya ekspeditsiya Krasnoyarskogo geologicheskogo upravleniya, st. Yermakovo.

YEMEL'YANENKO, G.A.; BAYBAKOVA, Ye.Ya.

Electrodeposition of zinc and lead at given high current densities. Ukr.khim.zhur. 28 no.7:809-911 '62. (MIRA 15:12)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Zinc plating) (Lead plating)

S/080/62/035/009/008/014
D204/D307

AUTHORS: Yemel'yanenko, G.A., Baybarova, Ye.Ya., and Semeryuk, V.I.

TITLE: The electrodeposition of cadmium in the presence of hide glue (A), gelatine (B), and sulphonated naphthalene (C)

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 9, 1962, 2007 - 2011

TEXT: The effects of A, B, and C on the electrodeposition of Cd from a solution containing 50 g $CdSO_4 \cdot 8/3\ H_2O$ and 50 g H_2SO_4 per liter were studied at room temperature, in an effort to improve the properties of electrolytic cadmium used as anticorrosive coatings on Fe. The cathodic polarization, $\Delta\varphi$, was measured at various current densities, with and without additives, using a 1 cm^2 flat cathode and a large Cd anode. The greatest increases in $\Delta\varphi$ ($\gtrsim$ 100 mv) were observed with simultaneous additions of A and C or B and C. $\Delta\varphi$ increased with i (0.4 - 2.0 a/dm^2) and passed through maxima

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with increasing concentration of the additives; e.g. with 1 g A/liter $\Delta\varphi$ was maximum at ~5 g C/l, whilst with 10 g A/l the polarization was greatest when 2 - 5 g of C were added. These effects are ascribed to the formation of strong adsorption layers of the additives on the surface of Cd; the layers were stronger when C was added to a solution containing 10 g/l of A or B, than when C was added to those containing only 1 g/l of either A or B. The eventual lowering of $\Delta\varphi$ at high concentrations of C is explained by a relative excess of this additive in the adsorbed layer, over A or B. The adsorbed layers increased the energy barrier for the discharge and dehydration of Cd ions and facilitated the production of dense, fine-grain deposits of the metal. There are 3 figures and 2 tables.

SUBMITTED: June 5, 1961

Card 2/2

YEMEL'YANENKO, G.A.; SIMULIN, G.G.; BAYBAROVA, Ye.Ya.

Electrodeposition of copper from sulfuric acid solutions at high current densities. Ukr. khim. zhur. 29 no.4:404-408 '63. (MIRA 16:6)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Copper plating)

YEMEL'YANENKO, G.A.; BAYBAROVA, Ye.Ya.; SIMULIN, G.G.

Cathodic deposition of zinc and lead at high current densities. Ukr. khim.zhur. 29 no.5:515-518 '63. (MIRA 16:9)

1. Dnepropetrovskiy gosudarstvennyy universitet.

YEMEL'YANENKO, G.A.; BAYBAROVA, Ye.Ya.

Electrodeposition of silver at high current densities. Ukr. khim. zhur. 31 no.1:37-41 '65. (MIRA 18:5)

1. Dnepropetrovskiy gosudarstvennyy universitet.

ACC NR: AR7008644 SOURCE CODE: UR/0372/66/000/012/V069/V069

AUTHOR: Abdullayeva, N.; Baybatyrov, Zh.

TITLE: Use of the "M-20" computer for diagnosing illnesses

SOURCE: Ref. zh. Kibernetika, Abs. 12V464

REF SOURCE: Sb. Vopr. vychisl. matem. i tekhn. Vyp. 9. Tashkent, Nauka, 1966, 81-87

TOPIC TAGS: computer application, ~~digital computer~~, diagnostic ~~medicine~~ INSTRUMENT, DIGITAL COMPUTER / M-20 DIGITAL COMPUTER

ABSTRACT: When a digital computer is used as an aid in establishing a diagnosis, the diagnostic process is divided into two stages: deterministic logic and probabilistic logic. From the standpoint of deterministic logic, the diagnostic problem consists of establishing all possible illnesses which correspond to given medical assertions and given symptoms in the patient; from the standpoint of probabilistic logic, the diagnostic problem consists of finding the probability of a given illness when the patient has given symptoms. A diagnostic algorithm is proposed and a block diagram of a program is given together with a brief description. 1 illustration, bibliography of 2 titles. G. V. [Translation of abstract]

SUB CODE: 09, 06 /

Card 1/1 UDC: 51;681.14:155

L 54552-65 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) Pc-4 [illegible]

A[illegible] NR: AP[illegible]

[illegible]

AUTHORS: Baybayev, A. I.; Gamburg, D. Yu.; Reshetov, V. P.; Shagiyan, Sh. K.

TITLE: A method for improving the properties of carbon black. [illegible]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, [illegible]

TOPIC TAGS: carbon black, methane, cracking inert gas

ABSTRACT: This Author Certificate presents a method for [illegible] carbon black by roasting it in a stream of [illegible] gas. [illegible]

ASSOCIATION: none

[illegible]

[illegible]

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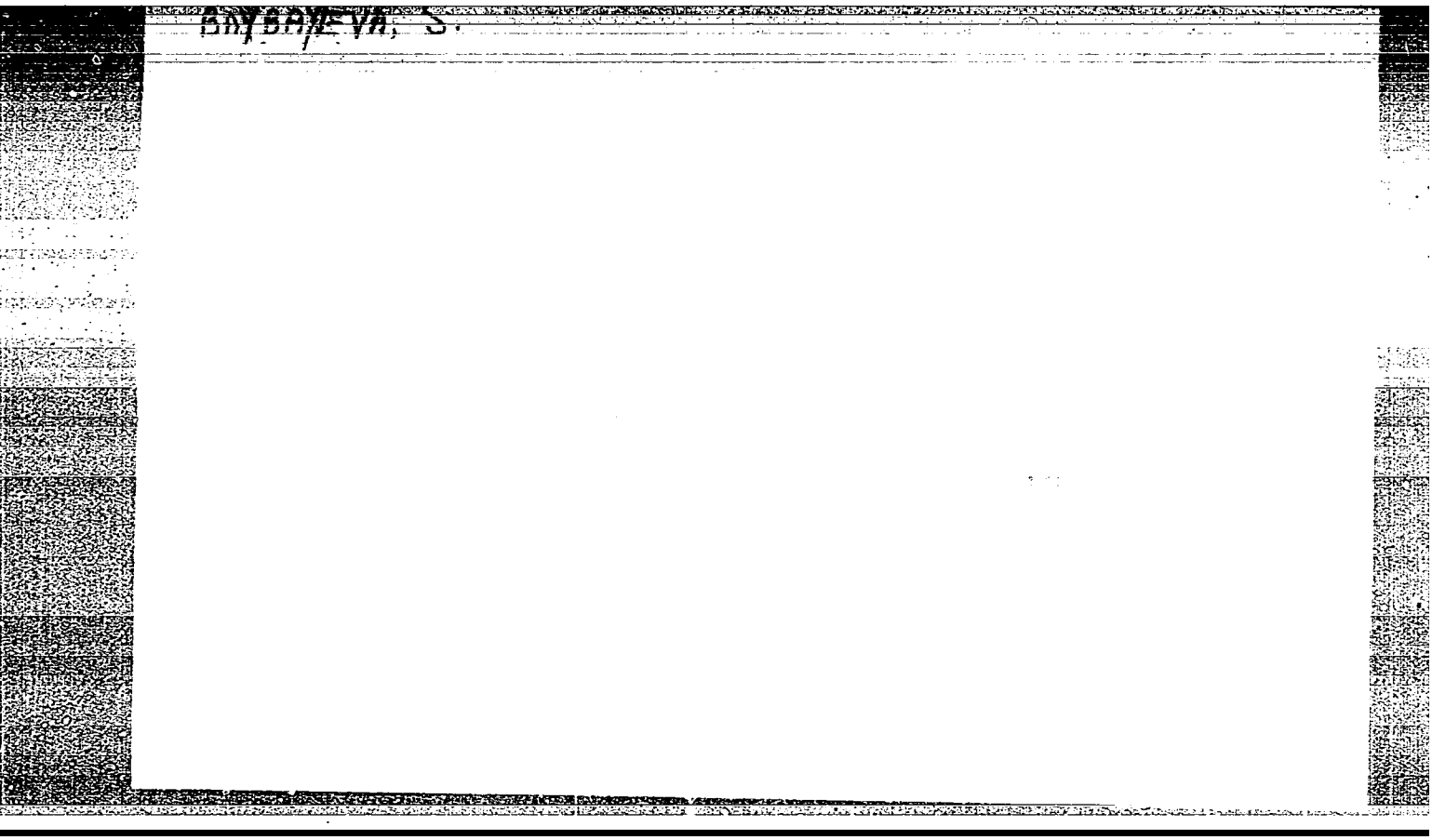
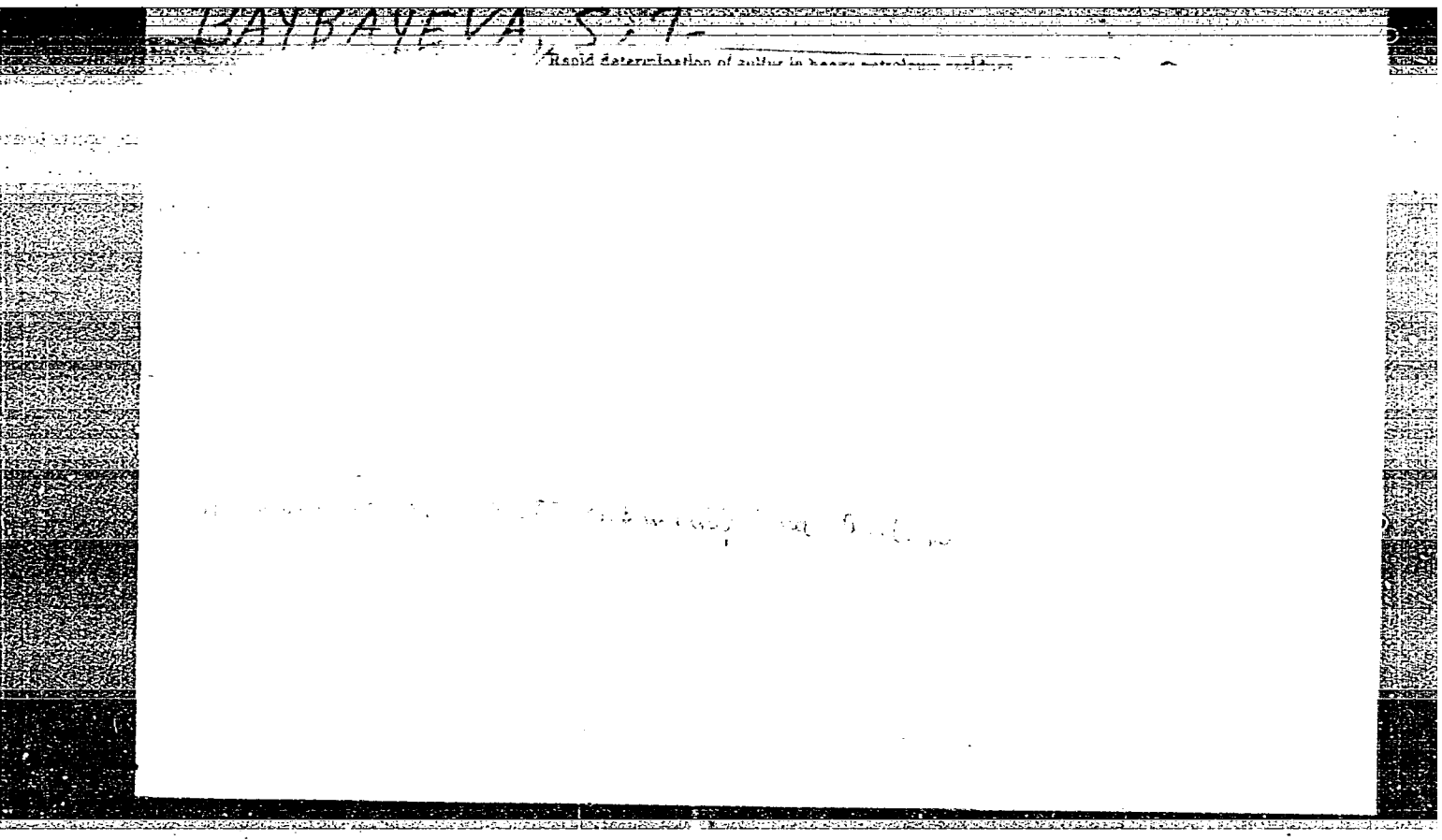


BAYBAYEVA, S. T.

"The microdetermination of the elementary composition of petroleum products." Acad Sci USSR. Inst of Petroleum. Moscow, 1956
(Dissertation for the Degree of Candidate in Chemical Sciences)

SO: Knizhnaya letopis', No. 16, 1956



BAYBAYEVA S.I.

11(4) PHASE I BOOK EXPLOITATION SOV/1319

Akademiya nauk SSSR. Bashkirskiy filial

Khimiya sero-organicheskikh soyedineniy, soderzhashchikhsya v neftyakh i nefteproduktakh; materialy II nauchnoy sessii (Chemistry of Sulfur-Organic Compounds Contained in Petroleum Products; Papers of the 2nd Scientific Session) v. 1. Ufa, Izd. Bashkirskogo filiala AN SSSR, 1958. 2?8 p. 1,500 copies printed.

Ed.: Sudarikina, K.I.; Editorial Board: Ayvazov, B.R., Moshkina, A.V., Obolentsev, R.D. (Resp. Ed.), Rozhdestvenskiy, V.P., and Shemis, L.L.; Tech. Ed.: Bakhimov, R. Kh.

PURPOSE: This book is intended for petroleum specialists of scientific research establishments, educational institutions, and petroleum refining plants.

COVERAGE: This collection is the first of a multivolume publication on the results of scientific research work carried out in the Soviet Union on the chemistry and technology of sulfur- and nitrogen-organic compounds during the period 1954-1955; and according to a coordinated research project outlined in 1956 by the sponsoring agency (Bashkir Branch, AS USSR).

Card 1/13

Baybayeva, S.T., V.P. Musyahenko, and N.G. Orlova, (Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti--All Union Scientific Research Institute for the Petroleum Industry). An Accelerated Method of Determining the General Sulfur Content of Petroleum and Petroleum Products 215

This method is described by the following procedure: petroleum material is heated in a pipe to 900-950 °C in a current of air which transforms the sulfur content into sulphuric oxides which are absorbed

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by a 1 percent solution of hydrogen peroxide. The sulfuric acid formed is titrated with a 0.02N solution of sodium hydroxide in the presence of a mixed indicator (methyl red-methylene blue). Resultant data is tabulated and compared with data obtained by other methods.

BAKRAYEVA, S.T.; BUNAKOVA, L.P.

Determination of chlorine in epoxide resins. Lakokras.mat. i ikh prim. no.2:46-47 '60. (MIRA 14:4)
(Chlorine--Analysis) (Epoxy resins)

BAYBAYEVA, S.T.; SMILGA, Kh.V.; TOMILOVA, N.D.

Determining methyl groups and formaldehyde content of phenol- and cresol-formaldehyde resins. Lakokras.mat.i ikh prim. no.2:52-54 '62. (MIRA 15:5)

(Resins, Synthetic—Testing)

ASHARINA, Ye.L.; BAYBAYEVA, S.T.

Chemical method for determining fumaric and maleic acids in polyester resins and lacquers. Lakokras.mat. i ikh prim. no.2: 54-55 '64. (MIRA 17:4)

Baybazarov A. A.

KOLOMIYTSOV, Yu.V.; INYUSHIN, A.I.; BAYBAZAROV, A.A.

Noncontact optical micrometer. Izm. tekh. no.2:25-29 Mr-Ap '57.
(Micrometer) (MLRA 10:6)

BIKTIMIROVA, T.G.; BAYBAZAROV, A.A.

Spectrographic determination of the metals in catalysts.
Trudy BashNII NP no.7:141-143 '64. (MIRA 17:9)

USSR / Pharmacology and Toxicology--Medicinal Plants V-5

Abs Jour: Ref Zhur-Biol, No 23, 1958, 107362

Author : Baybekov, E.

Inst : Tashkent State Medical Institute, AS Usbek SSR

Title : Data for the Study of the Pharmaco-Toxicological Properties of Saponins from Tubers of Leontice Eversmannii Bge

Orig Pub: Nauchn. raboty stud. Tashkentsk. gos. med. in-ta. Tashkent, AN UzbSSR, 1956, 45-49

Abstract: The tubers of Leontice eversmannii Bge contain saponins possessing a high hemolytic activity. In a concentration of 1:1,000, raw saponin (RS) is toxic to protozoa, rainworms, and small fish, and an administration per os of 4 percent solution to

Card 1/2

Abs Jour: Ref Zhur-Biol, No 23, 1958, 107362

a dog produces violent vomiting. The subcutaneous introduction causes the death of animals (mice, frogs), with symptoms of general paralysis; an 0.1 percent solution of RS produces dilatation of the vessels of the isolated liver and stoppage of a frog's heart in the systole. Weaker concentrations constrict the liver vessels and increase the number of heart contractions; RS inhibits the absorption of 0.6 percent solution of NaCl and salicylic acid by frog's skin but increases the absorption of sodium salicylate and potassium iodide. The tubers are important raw material for obtaining saponins; the output represents 27 percent of the weight of the air-dry tubers. --R. S. Vorob'yeva

U SI-ZHUY [Wu Su-jui]; BAYBEKOV, E.B.

Effect of 2-(p-aminophenyl)-N-(-methylphenethyl)-acetamide (IEM-366) on the central nervous system and its antagonistic relationship with phenamine. Farm.i toks. 24 no.1:22-30 Ja-F '61. (MIRA 14:5)

1, Otdel farmakolgoii (zav. - deystvitel'nyy chlen AMN SSSR S.V. Anichkov) Instituta eksperimental'noy meditsiny AMN SSSR.
(PHENETHYLAMINE) (SEDATIVES)
(NERVOUS SYSTEM)

BAYBEKOV, E.B.; SULTANOV, M.B.

Pharmacology of the quaternary base of vincanine hydroxymethylate. Farm. alk. no.1:108-114 '62. (MIRA 16:9)
(VINCANINE)

SULTANOV, M.B.; BAYBEKOV, E.B.

Pharmacology of the quaternary base of vincanine hydroxyethylate. Farm.alk. no.1:115-120 '62. (MIRA 16:9)
(VINCINE)

SULTANOV, M.B.; BAYBEKOV, E.B.

Effect of vincanine, its quaternary bases and virkanidin on the intestinal musculature. Farm. alk. no.1:121-126'62. (MIRA 16:9)

(VINCANINE—PHYSIOLOGICAL EFFECT) (INTESTINES)

BAYBEKOV, K.A.

Method for determining the ability of coal to undergo preparation. Standartizatsiia 26 no.9:33-34 S '62. (MIRA 15:9)
(Coal preparation—Standards)

PRIMACHOK, N.V.; BAYBEKOV, K.A.

Preparation of representative samples. Standartizatsiia 29 no.1:57 Ja '65. (MIRA 18:4)

BAYBEKOV, Kh.

"Observer." Tekh.mol.25 no.1:33 Ja '57. (MLRA 10:2)
(Astronomical instruments)

ARTAMONOV, K.F.; KOSTYUCHENKO, E.V.; BAYBEKOV, N.A.

Results of investigating the formation of the forebay and the afterbay of the western branch intake of the Great Chu Canal. Trudy Inst. vod. khoz. i energ. AN Kir. SSR no.6:133-154 '59. (MIRA 15:5)

(Great Chu Canal--Hydraulic structures)

BAYBEKOVA, P. I.

6221 AGEYEV, A. I. AND BAYBEKOVA, P. I. Knigi Po Sel'skomu Khozyaystvu. v Pomoshch' Komplektovaniyu i Organizatsii Sistemat. Kat log Mestnykh Bibliotek. (ukazatel' Literatyru). Tashkent, 1954. 63s 20sm. (M-vo Kul'tury UzSSr. Resp. Bibliotech. Kollektor Uzglavknigotorga. Tashkentskaya Obl. B, Ka) 1.5.000 Akz. B. Ts. - Sost. Ukazanu a Oborote Tit. L.- Na Uzbek. Yaz. (55-652) 016:63

SO: Knizhnaya Letopis', 1, 1955

BAYBEKOVA, SH. KH.

USSR/Medicine - Antibiotics

"Application of Mycetin in Surgical Practice," S. M. Vyaseleva, T. A. Danilova, Sh. Kh. Baybekova, Chair of Microbiol, Kazan' Stomatol Inst and Hosp Surg Clinic, Kazan' Med Inst.

"Khirurgiya" No 10, 1951 * pp 75-78

PA 192T74

Mycetin isolated from Actinomyces violaceum according to Krasil'nikov's method gave encouraging results in local application for the treatment of acute inflammatory processes, infected and slowly healing wounds, and trophic tumors. Mycetin exerts a bacteriostatic effect on staphylococci, streptococci, and some gram-pos bacilli of the diptheroid type. Its effect on gram-neg bacilli is weak. Antibacterial effect of a strain of Actinomyces violaceum was described by Krasil'nikov and Korenyako in 1938.

PA 192T74

* SO: Gene Pronko, 500

BAYBEKOVA, Sh.Kh.

Dynamics of intestinal obstruction in diseases of the upper urinary tract. Nauch. trudy Kaz. gos. med. inst. 14:355-356 '64. (MIRA 18:9)

1. Kafedra gospital'noy khirurgii No.1 (zav. - dotsent R.A.Vyaselev) Kazanskogo meditsinskogo instituta.

BAYBEKOVA, Sh.Kh., dotsent

Spastic intestinal obstruction caused by diseases of the urinary passages. Kaz.med.zhur. 40 no.1:44-48 Ja-F '59.
(MIRA 12:10)
1. Iz kafedry gospital'noy khirurgii No.1 (zav. - prof.N.V. Sokolov) Kazanskogo meditsinskogo instituta.
(INTESTINES--OBSTRUCTIONS) (URINARY ORGANS--DISEASES)

ARBUZOV, K.N., dots.; BAYBEKOVA, Z.K., assistent; KUDRINA, N.I., assistent

Extracting saponin from plants found in Uzbekistan. Nauch. trudy Samark. inst. sov. torg. 8:261-266 '57. (MIRA 12:7)
(Saponin)

DEMENT'YEV, I.M.; BAYBIKOV, V.G.

Reconditioning blades of automatic bolt-forging machines. Sbor. rats.predl.vnedr.v proizv. no.5:41 '60. (MIRA 14:8)

1. Druzhkovskiy metiznyy zavod.
(Forging machinery--Maintenance and repair)

Dissertation: "The State of Foreign Gravimetric (Pendulum) Surveying." Cand Tech Sci, Moscow Inst of Engineers of Geodesy, Aerial Photograph and Cartography, 4 Jun 54. Vechernyaya Moskva, Moscow, 26 Jun 54.

SO: SUM 284, 26 Nov 1954

BAYBORODIN, A.I.

Control network of gravimetric surveys in foreign countries.
Trudy TSNIIGAIK no.139:61-75 '60. (MIRA 14:7)
(Gravimetry)

BAYBORODIN, M.P.

Letter to the editor. TSement 28 no.1:22 Ja-F '62. (MIRA 16:5)

1. Yemanzhelinskiy tsementnyy zavod.
(Cement plants—Equipment and supplies)

BAYBORODIN, M.P., inzh.

Efficiency experts aid production. TSement 31 no.1:18 Ja-F '65. (MIRA 18:4)

1. Yemanzhelinskiy tsementno-shifernyy kombinat.

BAYBORODIN, M.P., inzh.

Weight reduction of a kiln sitar. TSement 31 no.2:[illegible] Mr-Ap '65. (MIRA 18:8)

1. Yemanzhelinskiy tsementno-shifernyy kombinat.

BAYBORODOV, Yu.I., inzh.

Measuring the temperature of the lubricant of a nonmetallic sliding bearing. Vest. mashinostr. 45 no.1:45-47 Ja '65. (MIRA 18:3)

L 38083-66 EWT(m)/EWP(j)/T IJP(c) WW/DJ/RM

ACC NR: AP6014335 (A,N) SOURCE CODE: UR/0122/65/000/012/0041/0045

AUTHOR: Kodnir, D. S. (Candidate of techincal sciences, Docent); Bayborodov, Yu. I. (Engineer)

ORG: None

TITLE: Determining thickness of the lubricating layer, pressure and coefficient of friction in nonmetallic plain bearings

SOURCE: Vestnik mashinostroyeniya, no. 12, 1965, 41-45

TOPIC TAGS: journal bearing, ~~hydrodynamic~~ film lubrication, oscillograph, fluid friction, friction coefficient, LUBRICATION TECHNIQUE

ABSTRACT: The physical processes in nonmetallic bearings are theoretically and experimentally studied. The basic operational characteristics of the fluid friction bearing are measured. Thickness, form of the lubricating layer and other parameters which determine the operational eff ciency of a plain bearing are explained. The thickness of the lubricating layer is measured by an electrode fixed in a rotating shaft. This method is used for studying metal bearings. The capacity method is used for measuring the lubrication layer in nonmetallic plain bearings. A diagram is given showing the bearing, shaft and measuring equipment for this method. The temperature of the lubricating layer is measured by a method discussed in the literature. Theoretical analysis shows that the hydrodynamic load capacity is a power function of the lubricating layer

Card 1/3 UDC: 621.822.5:678.675.001.5

ACC NR: AP6014335

thickness. This fact brought up the necessity of estimating lubricating layer thickness measurement error. Calibration error is considered. Oscillogram analysis errors are also studied. The MPO-2 oscillograph was used for recording the thickness and shape of the lubricating layer. The oscillograms are used to determine the form of clearance as a function of the central angle ψ in nonmetallic bearings made of capron and P-68 under various loads (ψ=0.00331, ε=2.67 mm). The form of the clearance in liquid nondeformed plain bearings is close to a quadradic parabola. The contact hydrodynamic theory of lubrication may be used to calculate localized hydrodynamic pressure in various cross sections of the friction zone which permits determination of the overall load capacity of a bearing. In addition to a comparison of the theoretical and experimental bearing load capacity, the respective pressure curves are also compared. An experiment is set up in which nonmetallic bearings are made with tubes fixed at their centers. These tubes are filled with oil and connected to manometers on a special panel. Pressure measurements are taken during operation of the bearing. A diagram is given showing the pressure variation in the bearing caused by various loads. Friction torque is measured for the bearings being tested. These measurements were used to determine the friction coefficient. A comparison of lubricating layer thicknesses shows that the presence of elastic bearing deformation causes a more favorable clearance form and increases hydrodynamic load capacity considerably at the smallest lubricating layer thickness. The experimental coefficients of friction are higher for nonmetallic bearings working on turbine oil 22 than for metal bearings. This

L 38683-66

ACC NR: AP6014335

difference increases with load. These findings are in agreement with the findings in the literature. This study experimentally confirms the contact hydrodynamic theory of lubrication and gives basic relationships for engineering calculations of the load capacity of nonmetallic liquid friction plain bearings. Orig. art. has: 5 figures, 2 tables.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001

Card 3/3

BAYBORODOV, Yu. T.; IOFFE, M. S.; PETROV, V. M. and SOBOLEV, R. I.

Adiabatic Trapping with Combined Magnetic Fields

report presented at the Study Group on Mirror Configurations, Fontenay-aux-Roses, France, 15-19 Jul 1963.

L 10110-63 EWG(k)/EWT(1)/EEC(b)-2/ES(w)-2/RDS AFFTC/ASD/ESD-3/AFWL/
SSD Pz-4/Pab-4/Pi-4/Po-4 AT/IJP(C)
ACCESSION NR: AP3001172 S/0089/63/014/005/0443/0445

AUTHOR: Bayborodov, Yu. T.; Ioffe, M. S.; Petrov, V. M.; Sobolev, R. I.

TITLE: Adiabatic trap with combined magnetic field 82

SOURCE: Atomnaya energiya, v. 14, no. 5, 1963, 443-445 81

TOPIC TAGS: adiabatic traps, combined magnetic fields, confinement of plasma

ABSTRACT: Results are presented of experiments in plasma confinement 21 by means of a PR-5 adiabatic trap with magnetic mirrors, in which the magnetic field grows in longitudinal and radial directions. The concept behind such a trap is that the growth of the field in a radial direction prevents the development in the plasma of convective instability, which provokes the escape of plasma across the magnetic field. Such a stabilizing field was generated by means of stabilizing windings added to the longitudinal field coils. At a sufficiently large stabilizing-field intensity, the lifetime of plasma in the trap increases considerably. The intensity of the longitudinal field in the central part of the trap and of the stabilizing field reached 5000 and 4500 oe, respectively, and the preliminary

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L 10110-63
ACCESSION NR: AP3001172

pressure in the chamber reached 1 x 10 sup -6 mm Hg. A differential system of evacuation by means of titanium pulverized directly on the inner surface of the chamber kept the pressure in the central part of the chamber at 5 x 10 sup -8 mm Hg with a steady admission of hydrogen at 500 cm sup 3/hr into the plasma source. "Magnetronic" injection was used to fill the trap with plasma. In these experiments n is approximately equal to 10 sup 9 cm sup -3, T sub i is approximately equal to 5 kev, and T sub e is approximtely equal to 20 ev. The effect of the stabilizing field on the confinement features of the trap was determined from the dependence of plasma-decay-time variation on the field. It was found that plasma decays 35 times slower when the field equals 1500 oe than when it equals zero. The absolute value for plasma decay during a stabilized mode was 3.5 millisec, as compared with 0.5 millisec obtained in previous experiments. This difference is associated with the different pressure of the neutral gas in the chamber and proves that the decay is due to charge exchange. The maximum decay time obtained with this device (at still lower pressure) reached 10--15 millisec. "The authors express thanks to L. A. Artsimovich for his continuing interest in the work, his contribution to its execution, and his extremely valuable discussion of the results." Orig. art. has: 3 figures.

ASSOCIATION: none
SUBMITTED: 11Apr63 DATE ACQ: 21Jun63 ENCL: 00
SUB CODE: NP NO REF SOV: 004 OTHER: 001
Card 2/2

ACCESSION NR: AP5002155 S/0120/64/000/006/0082/0086

AUTHOR: Bayborodov, Yu. T.

TITLE: Long-duration current-impulse generator 25 B

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1964, 82-86

TOPIC TAGS: impulse generator, current impulse generator

ABSTRACT: Designed for supplying the stabilizing winding of an adiabatic magnetic catcher, a new generator can produce near-sinusoidal current impulses of either polarity with an amplitude of 2--20 ka and a duration of 75 msec. Provisions are made to generate: (a) a single bipolar impulse, (b) a sequence of bipolar pulses with an adjustable frequency between 0.05 and 2 cps, or (c) a single positive or negative impulse. The type of operation can be set by a control unit which synchronizes the operation of the charging system and the power transformers (3-phase, 380 v). The power from two Y/Y-connected transformers is

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L 2539-65

ACCESSION NR: AP5002155 2

rectified by six TR1-40/15 thyratrons and switched by eight IVS-100/15 ignitrons. "The author wishes to thank A. K. Tarasov and A. S. Krylov who directly participated in aligning the generator." Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 02Dec63 ENCL: 00 SUB CODE: EC

NO REF SOV: 006 OTHER: 000

Card 2/2

BAYBORODIN, Yu.V., inzh.

Matrice method for study sampled-data systems. Vych. tekh. [MVTU] no.3:253-269 '63. (MIRA 17:2)

L 8459-65 EWA(k)/FBD/EWT(l)/EWT(m)/EEC(k)-2/K/EEC(t)/T/EEC(b)-2/EWP(k)/EWP(q)/EWP(b)/EWA(m)-2/EWA(h) Pr-4/Pi-4/Pl-4/Pn-4/Po-4 IJP(c)/SSD/BSD/RAEM(a)/AFWL/ASD(a)-5/ASD(d)/AFETR/RAEM(e)/RAEM(i)/RAEM(c)/ESD(gs)/ESD(t)/RAEM(t)/AFTC(p) WG/
ACCESSION NR: AP4040594 S/0185/64/009/005/0570/0573

AUTHOR: Bayborodin, Yu. V.; Broude, V. L.; Kravchenko, V. Y.; Soskin, M. S. B

TITLE: On the possibility of obtaining a series of powerful single (giant) pulses with a Ruby Laser

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 5, 1964, 570-573

TOPIC TAGS: ruby laser, neodymium doped glass laser, laser, laser modulation, pulsed laser, giant pulse laser, laser pulse repetition frequency, laser output, laser pumping threshold, optical pumping

ABSTRACT: A method was found whereby the output pulse of a ruby laser could be broken up into a series of discrete powerful (giant) pulses with pulse repetition frequency PRF at least as great as 20kc/s. One of the disadvantages of ruby and neodymium-doped-glass lasers is the low PRF; complicated apparatus is necessary to achieve PRF's of even several cycles per second. Peak powers of these high PRF devices do not exceed 1-10 kw, and the output pulse is a nonperiodic "comb-structured" series that is inconvenient to work with. During the course of theoretical and experimental laser modulation investigations, a scheme became apparent which could yield PRF's up to several kc/s for only one flash of the pumping lamp. At

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the very moment following the first stimulated emission pulse, the impurities are still in a relatively highly excited state; pumping power only slightly above threshold is needed to produce a second stimulated emission pulse. The flash of the pumping lamp is of the order of a millisecond, and in this scheme a chopper is inserted into the resonant cavity to chop the pumping light at frequencies of 5, 10, and 20 kc/s. The oscillograms of enclosures 01 through 04 demonstrate the effect of chopping of the pumping light. Figure 1 of the Enclosure shows the pumping pulse. This and all other figures were obtained by attenuating the output intensity by a factor of 100 before detection with a photodetector. A 20 kc/s trace from an audio oscillator is likewise supplied below each trace for calibration. Figure 2, shows the normal ruby emission when no chopper is used. Figures 3, 4, and 5 show the output when the chopper is run at PRF's of 5, 10, and 20 kc/s, respectively. It can be seen that a PRF for giant pulses of 20 kc/s is by no means an upper limit. This method is not dependent on any particular property of a three-level laser because it is a general characteristic of a laser medium to remain excited to about threshold just after the first emission. This method of controlling PRF's will be valuable in the study of the kinetics of laser emission. Orig. art. has: 5 figures.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204020009-4"

L 8459-65
ACCESSION NR: AP4039584

ASSOCIATION: Instytut Fizyky AN UkrSSR, Kiev (Institute of Physics, AN UkrSSR)

SUBMITTED: 24Jan64 ENCL: 03 SUB CODE: EC

NO REF SOV: 001 OTHER: 004

Card 3/6

L 8459-65
ACCESSION NR: AP4039584

ENCLOSURE: 01

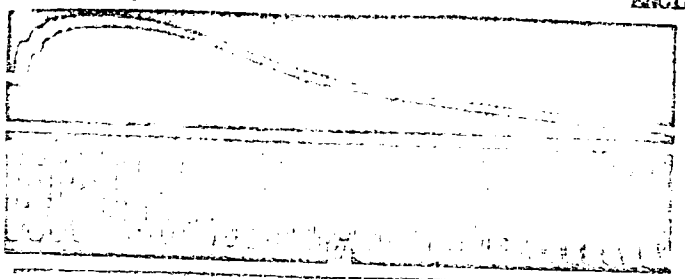

Fig. 1

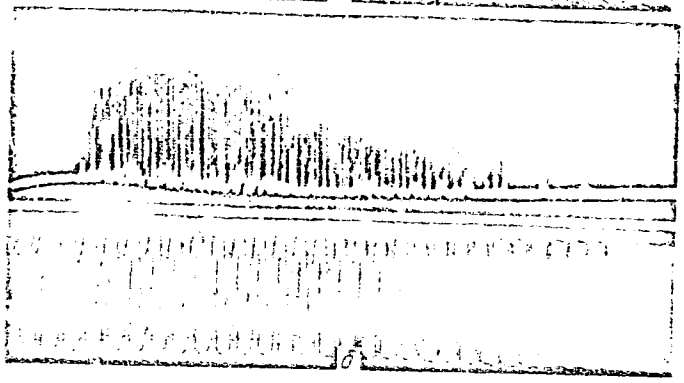

Fig. 2

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L 8459-65
ACCESSION NR: AP4039584 ENCLOSURE: 02

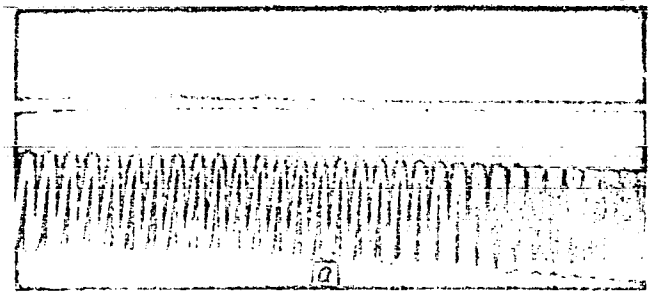

Fig. 3

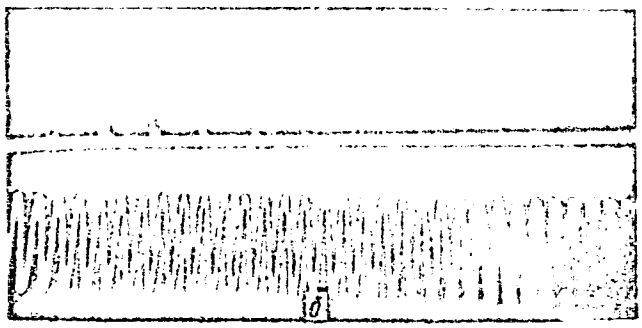

Fig. 4

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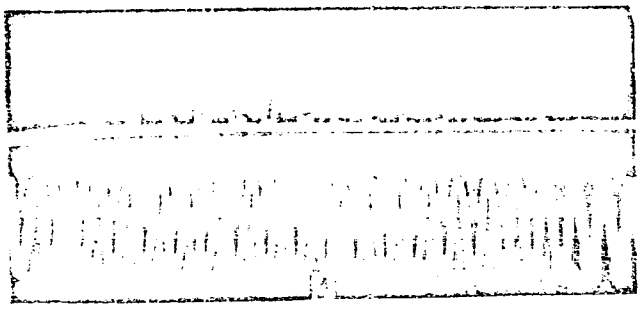

Fig. 5

For explanation of figures - see text of abstract

Card 6/6

AUTHOR: Bayborodin, Yu. V.; Narazha, S. A.; Nravchenko, V. Y., Spizhova

TITLE: Investigations of the operation of a Q-switched ruby laser

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 4, 1965, 455-457

TOPIC TAGS: Q switched laser, ruby laser, pump energy, laser characteristic

ABSTRACT: The authors present the results of an investigation of certain characteristics of Q-switched lasers, which play a major role in the generation of giant light pulses. The effect of the misalignment angle of the mirrors on the threshold pumping energy under various parameters of the optical cavity (static characteristics), and the dependence of the intensity of the laser radiation on these parameters (dynamic characteristics) were experimentally investigated. The dynamic characteristics investigated were the [illegible] optical resonator, the Q of the resonator, and the pump energy. A ruby rod 120 mm long and with diameter up to 12 mm, with a 90° orientation of the optical axis, was investigated. The pump source was a xenon flash lamp. The

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L 45718-65

ACCESSION NR: AP5011071

optical cavity was made up of a dielectric coated mirror and a total internal reflection prism accurate to ± 2°, mounted on a shaft of a high-speed motor (~ 30,000 rpm). The optical resonator was aligned [illegible] accuracy [illegible]. The shutter was synchronized with the peak of the flash lamp. The radiation receiver was a photocell in conjunction with an oscilloscope, which determined the pulse amplitude [illegible]. Typical beam [illegible] and energetic characteristics are shown in Figs. 1 and 2 of the Enclosure. The amplitude of the radiated pulse was proportional to the square root of the shutter speed, in agreement with the calculations. For a distance of 85 cm between mirrors and a transparency of 40%, the maximum intensity corresponded to a pump energy 50% above threshold. These values are optimal for a prism rotation speed of 20 x 10^3 revolutions per minute. Orig. art. has: 3 figures. [02]

ASSOCIATION: None

SUBMITTED: 15Dec64 ENCL: 02 SUB CODE: EC

NR REF SOV: 001 OTHER: 002 ATD PRESS: 4091

Card 2/4

L 4452-66 EWA(k)/FBD/EWT(1)/EWT(m)/EEC(k)-2/EWP(i)/T/EWP(k)/EWA(m)-2/EWA(h)
SCTB/IJP(c) WG/WH

ACC NR: AP5020695 UR/0185/65/010/008/0919/0920

AUTHOR: Bayborodin, Yu. V.; Harazha, S. A.; Kravchenko, V. Y.; Spizhova, N. I.

TITLE: Prism shutter with periodic opening

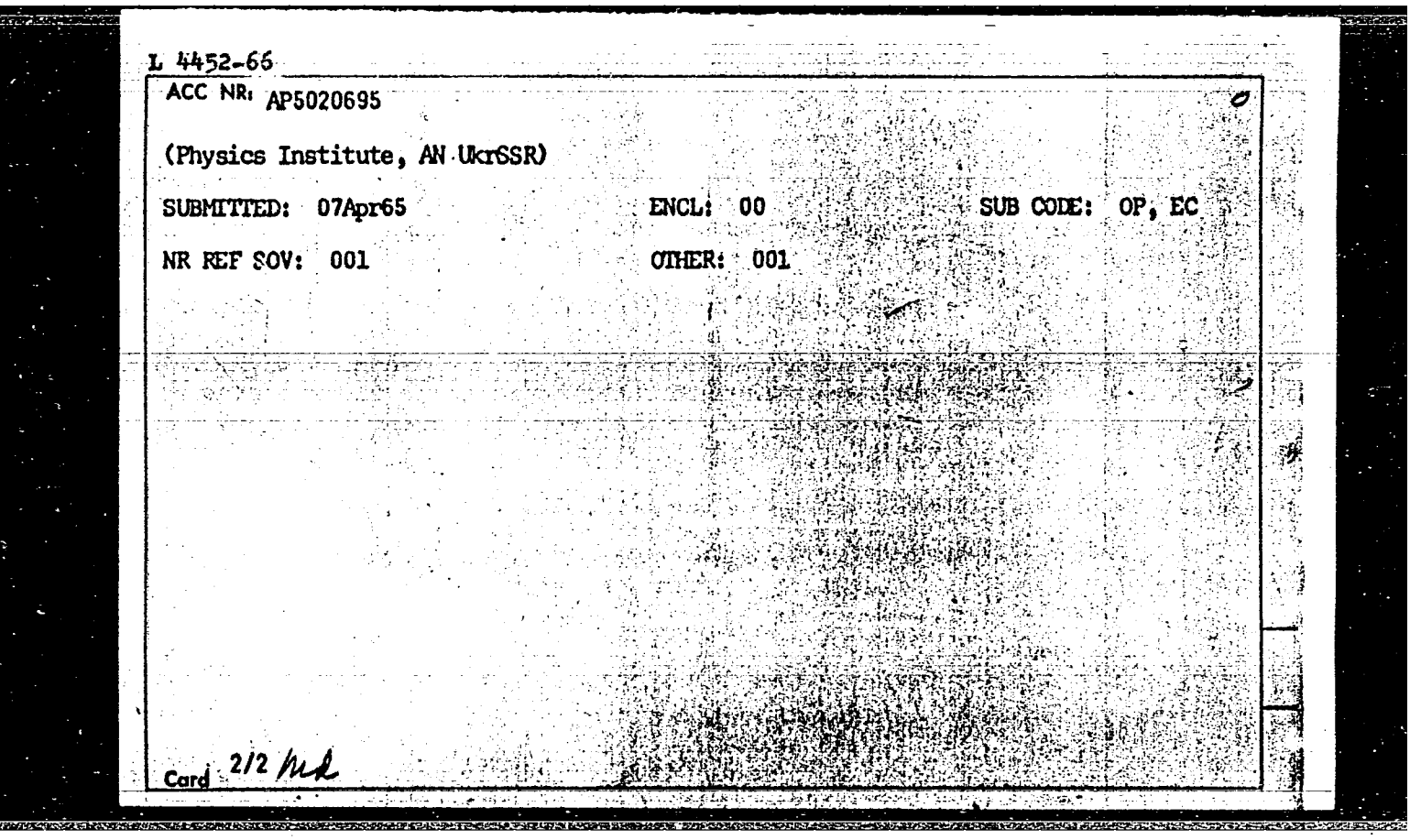
SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 10, no. 8, 1965, 919-920

TOPIC TAGS: ruby laser, laser pumping, laser pulsation, optic prism

ABSTRACT: A multi-prism Q switch is described, consisting of a rotating prism set on the shaft of an electric motor and a series of 60 totally reflecting prisms set on an annulus. The construction allows precise adjustment of the rotating prism relative to the ruby crystal of the laser and relative to the other prisms. Rotation of the setup results in multiple opening of the shutter which in turn leads to generation of a series of laser pulses. The rate of opening in this system is twice as large as with a single-prism Q switch. The repetition rate of the pulses depends on the rate of revolution of the motor and the number of prisms on the annulus, and the number of generated pulses depends on the length of the illumination of the pump lamp and the frequency of closing the optical resonator. A repetition rate of 20 cps with a length of the illumination pulse of 2 msec resulted in a rate of 4 to 20 pulses, depending on the pump energy. A simple synchronization system of the pump results in giant light pulses with a peak close to 1 MW. Orig. art. has: 2 figures.

ASSOCIATION: Instytut fizyky AN URSR, Kyyiv [Institut fiziki AN UkrSSR, Kiyev]

Card 1/2



L 4452-66

ACC NR: AP5020695

(Physics Institute, AN UkrSSR)

SUBMITTED: 07Apr65 ENCL: 00 SUB CODE: OP, EC

NR REF SOV: 001 OTHER: 001

Card 2/2 mk

L 43041-66 EWT(d)/FBD/EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/T/EWP(k) IJP(c) WG/WH

ACC NR: AP6029519 SOURCE CODE: UR/0432/66/000/004/0040/0042

AUTHOR: Bayborodin, Yu. V. (Candidate of technical sciences); Kravchenko, V. I.; Kabanov, E. N.; Karpenko, A. S.; Kozin, A. V.; Petrenko, R. A.; Shaposhnikov, B. V.

ORG: none

58
B

TITLE: A Q factor modulator for a ruby laser

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 4, 1966, 40-42

TOPIC TAGS: solid state laser, laser modulation, laser pulsation

ABSTRACT: A Q factor modulator that increases the output pulse power of a ruby laser by 10^3 is described. The modulator is made up of an optical head and an electronic unit. The optical head consists of a rotating prism with total internal reflection that acts as one of the mirrors of the laser optical resonator; it is driven at angular speeds up to 26×10^3 rpm by a dc motor. The electronic unit consists of a square wave generator, a comparator circuit, two time delay networks, a trigger circuit, a dc motor, and a power supply. The modulator operates in the following manner: at a given angular position of the prism with respect to the laser beam, light from a lamp is focused through a lens and illuminates a photosensitive diode. The output pulse of the photodiode is amplified and fed to the comparator. When the rotational speeds of the motor and the prism are equal, the comparator initiates a pulse that lights the laser pumping lamp and thus triggers the laser. At the same time, the

Card 1/2 UDC: 621.378.325